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12/23/03Signed: Donald R. McKenna

Donald R. McKenna

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No.	:	10/606,201	Confirmation No.:
Applicant	:	Tammy Burd Mehta et al.	
Filed	:	June 25, 2003	
TC/A.U.	:	1744	
Examiner	:	Not yet assigned	
Docket No.	:	100/05231	
Customer No.	:	021569	
Title	:	Manipulation of Microparticles in Microfluidic Systems	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

The references cited on the attached form PTO-1449 are being called to the attention of the Examiner. This application is a continuation of U.S. Patent application number 09/510,626, filed February 22, 2000. All references cited in the attached form 1449 have been previously cited in the parent application. Copies of documents are therefore not being provided pursuant to 37 CFR §1.98(d). If copies of the references are not available to the Examiner, the Examiner is invited to contact the undersigned.

It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

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representation is made that a search has been conducted or that this statement encompasses all possible relevant information.

Applicants believe that no fee is required for submission of this statement, since it is being submitted within three months of the filing date or prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to charge such fee to Deposit Account No. 03-0177. Please charge any additional fees or credit any overpayment to the above-noted deposit account.

Respectfully submitted,



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(Modified) PTO/SB/08A (10-01)
Approved for use through 10/31/02. GMP 0651-0037

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete If Known	
		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
Sheet	of	Examiner Name	My Chau Tran
		Attorney Docket Number	100/05231

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document No.	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, lines, Where Relevant Paragraphs or Relevant Figures Appear
		Number - Kind Code (if known)			
	AA	US-4,890,403	06-28-1993	Batchelder	
	AB	US-4,863,849	09-05-1989	Malemede	
	AC	US-4,908,112	03-13-1990	Pace	
	AD	US-4,971,903	11-20-1990	Hyman	
	AE	US-5,122,814	06-16-1992	Zalipsky	
	AF	US-5,126,022	06-30-1992	Scane et al.	
	AG	US-5,187,085	02-16-1993	Lee et al.	
	AH	US-5,202,231	04-13-1993	Dmanac et al.	
	AI	US-5,302,509	04-12-1994	Cheeseman	
	AJ	US-5,304,487	04-19-1994	Wilding et al.	
	AK	US-5,332,666	07-26-1994	Prober et al.	
	AL	US-5,498,392	03-12-1996	Wilding et al.	
	AM	US-5,525,711	06-11-1996	Hawkins et al.	
	AN	US-5,571,410	11-05-1996	Swedberg et al.	
	AO	US-5,585,069	12-17-1996	Zanzucchi et al.	
	AP	US-5,587,128	12-24-1996	Wilding, et al.	
	AQ	US-5,593,838	01-14-1997	Zanzucchi et al.	
	AR	US-5,603,361	02-18-1997	Cherukuri et al.	
	AS	US-5,635,358	06-03-1997	Wilding et al.	
	AT	US-5,637,469	06-10-1997	Wilding et al.	
	AU	US-5,650,234	07-22-1997	Dolence et al.	
	AV	US-5,653,939	08-05-1997	Hollis, et al.	
	AW	US-5,699,157	12-16-1997	Parce	
	AX	US-5,719,060	02-17-1998	Hutchens et al.	
	AY	US-5,747,349	05-05-1998	van den Engh et al.	
	AZ	US-5,750,015	05-12-1998	Scane et al.	
	BA	US-5,755,942	05-26-1998	Zanzucchi et al.	
Examiner Signature				Date Considered	

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(Modified) PTO/SB/08A (10-01)
Approved for use through 10/31/02. OMB 0651-0031

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
		Examiner Name	My Chau Tran
Sheet	of	Attorney Docket Number	100/05231

	BB	US-5,779,868	07-14-1998	Parce et al.	
	BC	US-5,798,210	08-25-1998	Canard	
	BD	US-5,800,690	09-01-1998	Chow et al.	
	BE	US-5,842,787	12-01-1998	Kopf-Sill et al.	
	BF	US-5,852,495	12-22-1998	Parce	
	BG	US-5,856,174	01-05-1999	Lipshutz, et al.	
	BH	US-5,858,195	01-22-1999	Ramey	
	BI	US-5,863,502	01-26-1999	Southgate et al.	
	BJ	US-5,869,004	02-09-1999	Parce et al.	
	BK	US-5,876,675	03-02-1999	Kennedy	
	BL	US-5,880,071	03-09-1999	Parce et al.	
	BM	US-5,882,465	03-16-1999	McReynolds	
	BN	US-5,885,470	03-23-1999	Parce et al.	
	BO	US-5,942,443	08-24-1999	Parce et al.	
	BP	US-5,948,227	09-07-1999	Dubrow	
	BQ	US-5,955,028	09-21-1999	Chow	
	BR	US-5,957,579	09-28-1999	Kopf-Sill et al.	
	BS	US-5,958,203	09-28-1999	Parce et al.	
	BT	US-5,958,694	09-28-1999	Nikiforov	
	BU	US-5,959,291	09-28-1999	Jensen	
	BV	US-5,964,895	10-12-1999	Nikiforov et al.	
	BW	US-5,995,001	10-12-1999	Chow et al.	
	BX	US-5,985,410	10-12-1999	Chow et al.	
	BY	US-5,972,187	10-26-1999	Parce et al.	
	BZ	US-5,976,336	11-02-1999	Dubrow et al.	
	CA	US-5,981,180	11-09-1999	Chandler et al.	
	CB	US-5,989,402	11-23-1999	Chow et al.	
	CC	US-6,001,231	12-14-1999	Kopf-Sill	
	CD	US-6,004,515	12-21-1999	Parce et al.	
Examiner Signature				Date Considered	

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(Modified) PTO/SB/08A (10-01)
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		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
		Examiner Name	My Chau Tran
Sheet	of	Attorney Docket Number	100/05231

	CE	US-6,007,690	12-28-1999	Nelson et al.	
	CF	US-6,011,252	01-04-2000	Jensen	
	CG	US-6,012,902	01-11-2000	Parce	
	CH	US-6,042,721	03-28-2000	Dubrow	
	CI	US-6,046,056	04-04-2000	Parce et al.	
	CJ	US-6,235,471	05-22-2001	Knapp et al.	
	CK	US-6,267,858	07-31-2001	Parce et al.	
	CL	US-6,274,337	08-14-2001	Parce et al.	
	CM	US-6,288,220	09-11-2001	Kambara et al.	
	CN	US-6,306,590	10-23-2001	Burd Mehta	
	CO	US-6,306,659	10-23-2001	Parce et al.	
	CP	US-20010035351	11-01-2001	Simpson et al.	

FOREIGN PATENT DOCUMENTS							
Examiner Initials	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Country Code - Number - Kind Code (if known)					
	CQ	WO-9804547		02-15-1998	Lockheed Martin		
	CR	WO-9702357		01-23-1997	Affymetrix, Inc.		
	CS	WO-9800231		01-08-1998	Caliper		
	CT	WO-9800705		01-08-1998	Caliper		
	CU	WO-9800707		01-08-1998	Caliper		
	CV	WO-9802728		01-22-1998	Caliper		
	CW	WO-9805424		02-12-1998	Caliper		
	CX	WO-9822811		05-28-1998	Caliper		
	CY	WO-9845481		10-15-1998	Caliper		
	CZ	WO-9845929		10-15-1998	Caliper		
	DA	WO-9846438		10-22-1998	Caliper		
	DB	WO-9849548		11-05-1998	Caliper		
	DC	WO-9855852		12-10-1998	Caliper		
	DD	WO-9856505		12-17-1998	Caliper		

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(Modified) PTO/SB/08A (10-01)
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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1699
		Examiner Name	My Chau Tran
Sheet	of	Attorney Docket Number	100/05231

	DE	WO-9856956	12-17-1998	Caliper	
	DF	WO-9900649	01-07-1999	Caliper	
	DG	WO-9910735	03-04-1999	Caliper	
	DH	WO-9912016	03-11-1999	Caliper	
	DI	WO-9916162	04-01-1999	Caliper	
	DJ	WO-9919056	04-22-1999	Caliper	
	DK	WO-9919516	04-22-1999	Caliper	
	DL	WO-9929497	06-17-1999	Caliper	
	DM	WO-9931495	06-24-1999	Caliper	
	DN	WO-9934205	07-08-1999	Caliper	
	DO	WO-9943432	09-02-1999	Caliper	
	DP	WO-9944217	09-02-1999	Caliper	
	DQ	WO-9956954	11-11-1999	Caliper	
	DR	WO-0009753	02-24-2000	Caliper	
	DS	EP 376611	07-04-1990	Leland Stanford Junior University	
	DT	EP 620432	10-19-1994	CIBA-GEIGY AG	
	DU	JP-10-53099	03-05-1998	Hitachi, Ltd.	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
	DV	BESKIN et al. "On the mechanism of the modular primer effect" <u>Nucleic Acids Research</u> (1995) 23 (15):2661-2665		T
	DW	BOUSSE et al. "Parallelism in integrated fluidic circuits," <u>SPIE</u> (1998) 3259:179-186		
	DX	BRENNER, S. et al. "Gene expression analysis by massively parallel signature sequencing (MPSS) on microbead arrays". <u>NATURE BIOTECHNOLOGY</u> (2000) 18:630-634		
	DY	BRUCHEZ et al. "Semiconductor Nanocrystals as Fluorescent Biological Labels" <u>Science</u> (1998) 281:2013-2016		
	DZ	BULT et al. "Complete Genome Sequence of the Methanogenic Archaeon, <u>Methanococcus jannaschii</u> " <u>Science</u> (1996) 273:1058-1073		

Examiner Signature	Date Considered
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(Modified) PTO/SB/08A (10-01)
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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
		Examiner Name	My Chau Tran
Sheet	of	Attorney Docket Number	100/05231

EA	CHEE et al "Accessing Genetic Information with High-Density DNA Arrays" Science (1998) 274:610-614	
EB	CHOU, Hou-Pu et al. "A microfabricated device for sizing and sorting DNA molecules", Proc. Natl. Acad. Sci (1999) 26:11-13	
EC	COHEN, C.B. et al., "A Microchip-Based Enzyme Assay for Protein Kinase A," Anal. Chem. (1999) 273:69-97	
ED	COUTLEE et al. "Nonisotopic Detection of RNA in an Enzyme Immunosay Using a Monoclonal Antibody against DNA-RNA Hybrids" Analytical Biochemistry (1989) 181:153-162	
EE	DASGUPTA, P.K. et al., "Electroosmosis: A Reliable Fluid Propulsion System for Flow Injection Analysis," Anal. Chem. (1994) 66:1792-1798	
EF	DRMANAC et al. "Accurate sequencing by hybridization for DNA diagnostics and individual genomics," Nature Biotechnology (1993) 16:54-58.	
EG	DRMANAC et al. "Sequencing of Megabase Plus DNA by Hybridization: Theory of the Method" Genomics (1989) 4:114-128	
EH	ECKSTEIN et al. "Phosphorothioates in molecular biology" Trendes in Blochem (1989) 14:97	
EI	EFFENHAUSER et al. "Glass Chips for High-Speed Capillary Electrophoresis Separations with Submicrometer Plate Heights" Anal. Chem (1993) 65:2637-2642	
EJ	EFFENHAUSER et al. "High-Speed Separation of Antisense Oligonucleotides on a Micromachined Capillary Electrophoresis Device," Anal. Chem. (1994) 66:2949-2953.	
EK	FAN et al. "Micromachining of Capillary Electrophoresis Injectors and Separators on Glass Chips and Evaluation of Flow at Capillary Intersection. Anal.Chem. (1994) 66:177-184.	
EL	FLEISCHMANN et al. Science (1995) 269:496-512	
EM	FODOR et al. "Light-Directed, Spatially Addressable Parallel Chemical Synthesis" Science (1991) 251:767-777	
EN	FODOR "Genes, chips and the Human Genome" FASEB Journal (1997) 11:121-121	
EO	FODOR "Massively Parallel Genomics" Science (1997) 277:393-395	
EP	FRASER et al. "The Minimal Gene Complement of Mycoplasma genitalium" Science (1995) 270:397-403	
EQ	GAY et al. J. Chem. Soc. (1970) 8:1123	
ER	HARRIS, J.M "Laboratory Synthesis of Polyethylene Glycol Derivatives" Rev. Macromol. Chem. Phys., (1985) C25(3):325-373	
ES	HARRISON et al. "Capillary Electrophoresis and Sample Injection Systems Integrated on a Planar Glass Chip Anal. Chem. (1992) 64:1926-1932.	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/606201
		Filing Date	June 25, 2003
		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
		Examiner Name	My Chau Tran
		Attorney Docket Number	100/05231
Sheet	of		

ET	HARRISON et al. "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip." Science (1993) 261:895-897	
EU	HARRISON et al. "Towards Miniaturized Electrophoresis and Chemical System Analysis Systems on Silicon: An Alternative to Chemical Sensors." Sensors and Actuators (1993) 10:107-116	
EV	ISHII et al. "Bead-Based Sandwich Hybridization Characteristics of Oligonucleotide-Alkaline Phosphatase Conjugates and Their Potential for Quantitating Target RNA Sequences" Bioconjugate chem. American Chemical Society (1993) 4:34-41	
EW	JACOBSON et al. "Open Channel Electrochromatography on a Microchip" Anal. Chem. (1994) 66:2369-2373	
EX	JACOBSON et al. "Precolumn Reactions with Electrophoretic Analysis Integrated on Microchip" Anal. Chem. (1994) 66:4127-4132	
EY	JACOBSON et al. "Effects of Injection Schemes and Column Geometry on the Performance of Microchip Electrophoresis Devices" Anal. Chem. (1994) 66:1107-1113	
EZ	JACOBSON et al. "High Speed Separations on a Microchip." Anal. Chem. (1994) 66:1114-1118	
FA	JACOBSON et al. "Microchip electrophoresis with sample stacking" Electrophoresis (1995) 16:481-488	
FB	JACOBSON, S.C. et al., "Fused Quartz Substrates for Microchip Electrophoresis," Anal. Chem. (1995) 67:2059-2063	
FC	KOPF-SILL et al. "Complexity and performance of on-chip biochemical assays," SPIE (1997) 2978:172-179 February 10-11	
FD	MANZ, A. et al., "Electroosmotic pumping and electrophoretic separations for miniaturized chemical analysis systems," J. Micromech. Microeng. (1994) 4:257-265	
FE	MATHE, C. et al. "Phosphopeptide Prodrug Bearing an S-Acyl-2-thioethyl Enzyme-Labile Phosphate Protection" J.Org. Chem. (1998) 63: 8547-8550 (1998)	
FF	NIE et al. "Quantum Dot Bioconjugates for Ultrasensitive Nonisotopic Detection" Science (1998) 281:2016-2018.	
FG	NYREN et al "Solid Phase DNA Minisequencing by an Enzymatic Luminometric Inorganic Pyrophosphate Detection Assay," Anal. Biochem. (1993) 208:171-175	
FH	PORTER et al. "Direct PCR sequencing with boronated nucleotides" Nucleic Acids Research (1997) 25 (8):1611-1617	
FI	RAJA et al. "DNA sequencing using differential extension with nucleotide subsets (DENS)" Nucleic Acids Research (1997) 25 (4):800-805	

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		First Named Inventor	Tammy Burd Mehta
		Art Unit	1639
		Examiner Name	My Chau Tran
Sheet	of	Attorney Docket Number	100/06231

	FJ	RAMSEY, J.M. et al., "Microfabricated chemical measurement systems," Nature Med. (1995) 1:1093-1098	
	FK	RICH et al. "Preparation of a New o-Nitrobenzyl Resin for Solid-Phase Synthesis of tert-Butyloxycarbonyl-Protected Peptide Acids" J. Am. Chem. Soc. (1975) 97:1575-1579.	
	FL	RONAGHI, M. et al. "Real-Time DNA Sequencing Using Detection of Pyrophosphate Release" Anal. Biochem. (1996) 242:84-89	
	FM	RONAGHI, M. et al. "A Sequencing Method Based on Real Time Pyrophosphate" Science (1996) 281:363-364	
	FN	SANGER et al. "DNA Sequencing with chain-terminating inhibitors" Proc. Nat. Acad. Sci., USA (1977) 74:5463-5467	
	FO	SEILER, K. et al., "Planar Glass Chips for Capillary Electrophoresis: Repetitive Sample Injection, Quantitation, and Separation Efficiency," Anal. Chem. (1993) 65:1481-1488	
	FP	SEILER, K. et al., "Electroosmotic Pumping and Valveless Control of Fluid Flow Within a Manifold of Capillaries on a Glass Chip," Anal. Chem. (1994) 66:3485-3491	
	FQ	SEILER, K. et al. "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip" Mit Gebiete Lebensm. Hyg. (1994) 85:59-68	
	FR	SUNDBERG, S. A., "High-throughput and ultra-high-throughput screening: solution - and cell-based approaches," Current Opinions in Biotechnology 2000, 11:47-53	
	FS	TOMB et al. "The complete genome sequence of the gastric pathogen Helicobacter pylori" Nature (1997) 538-547	
	FT	TYAGI, S. "Taking a census of mRNA populations with microbeads", NATURE, (June 2000) 18:597-598.	
	FU	WANG "Solid Phase Synthesis of Protected Peptides via photolytic Cleavage of the a-Methylphenacyl Ester Anchoring Linkage J. Org. Chem. (1976) 41:3258	
	FV	ZALIPSKY et al. "Attachment of Drugs to Polyethylene Glycols" Eur. Polym. J., (1983) 19(12), 1177-1183	
	FW	http://www.dev.nihgri.nih.gov/Dev/Projects/Grants/V7/test.cgi	

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